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NEW GENERA AND SPECIES OF NEOTROPICAL HESPERIIDAE WITH NOTES ON SOME OTHERS

(LEPIDOPTERA; RHOPALOCERA)

BY E. L. BELL

In arranging the Hesperiidae of The American Museum of Natural History collection a number of apparently undescribed species have been turned up and are here described. Two new genera are erected, one to include two of the newly described species which on their characters are not assignable to any genus now in use, and another to include a group of insects not congeneric with the type of the genus to which they have been previously assigned. The types and paratypes are in all cases in The American Museum of Natural History collection.

Oxynetra roscius Hopffer

Figure 1

Pyrrhopyge roscius HOPFFER, 1874, Stett. Ent. Zeit., XXXV, p. 370. Brasil.

Pyrrhopyge roscius DRAUDT, 1921, in Seitz, 'Macrolep. of the World,' V, p. 838.

This insect, which is rather rare in collections, is a member of the genus *Oxynetra* and not *Pyrrhopyge* where it has been usually placed by authors. The wing shape and form of the male genitalia is that of *Oxynetra*. It differs from the other members of the genus in lacking all hyaline spots of both wings, in the males.

A male and two females are in the collection of The American Museum of Natural History, from Massaranduba-Blumenau, Santa Catharina, Brasil. The male has the top of the head red except a black spot at the base of each antenna; palpi, collar, shoulder covers and a large spot at the base of the tegulae are the same color. Pectus is black. The anal two-thirds of the abdomen is red, ringed with black, the ring nearest the base is the broadest. The anal tuft is red. Ventral surface of the abdomen black with a central row of reddish spots. Fringes of primaries black with an occasional white scale in the lower half; those of the secondaries are white except at the inner angle of the wing where there are some black scales intermixed. The outer margin of the secondaries of the male is slightly excavate in the center. The female is

like the male except the wings are more rounded and without the excavation in the outer margin of the secondaries; top of the head black intermixed with red; the pectus with a few red hairs in the center. One female has white fringes on all four wings, except at apex of primaries and inner angle of secondaries; the other female has similar fringes of the secondaries but those of the primaries are intermixed with black.

Oxynetra flavomaculata, new species

This species greatly resembles *roscius* in size, wing shape and characters of the red markings on the head and body but the primaries have a median band of five and a subapical band of five yellow hyaline spots. These two bands are placed similarly to those of *semihyalina* Felder but are narrower and yellow instead of white and there are no hyaline bands and spots on the secondaries.

Upper Side.—Male has a median band composed of a large, somewhat quadrate spot in the cell, extending completely across it; the next spot small and triangular in the base of interspace 3; the next directly beneath larger and elongate, tapered to a blunt point inwardly, in interspace 2 toward the base; the next two are in interspace 1 directly beneath the others, they are elongate but not as long as the spot above them, the inner tip of each is bent, that of the upper one downward and that of the lower one upward, and the two tips nearly touch in the middle of the interspace. The subapical series consists of a fine streak in interspace 8; a narrow, triangular streak in interspace 7; a shorter, triangular streak in interspace 6; a subquadrate spot in interspace 5; a narrow, elongate spot in interspace 4; the two last mentioned are just beyond the cell end and the whole band extends downward in a nearly straight

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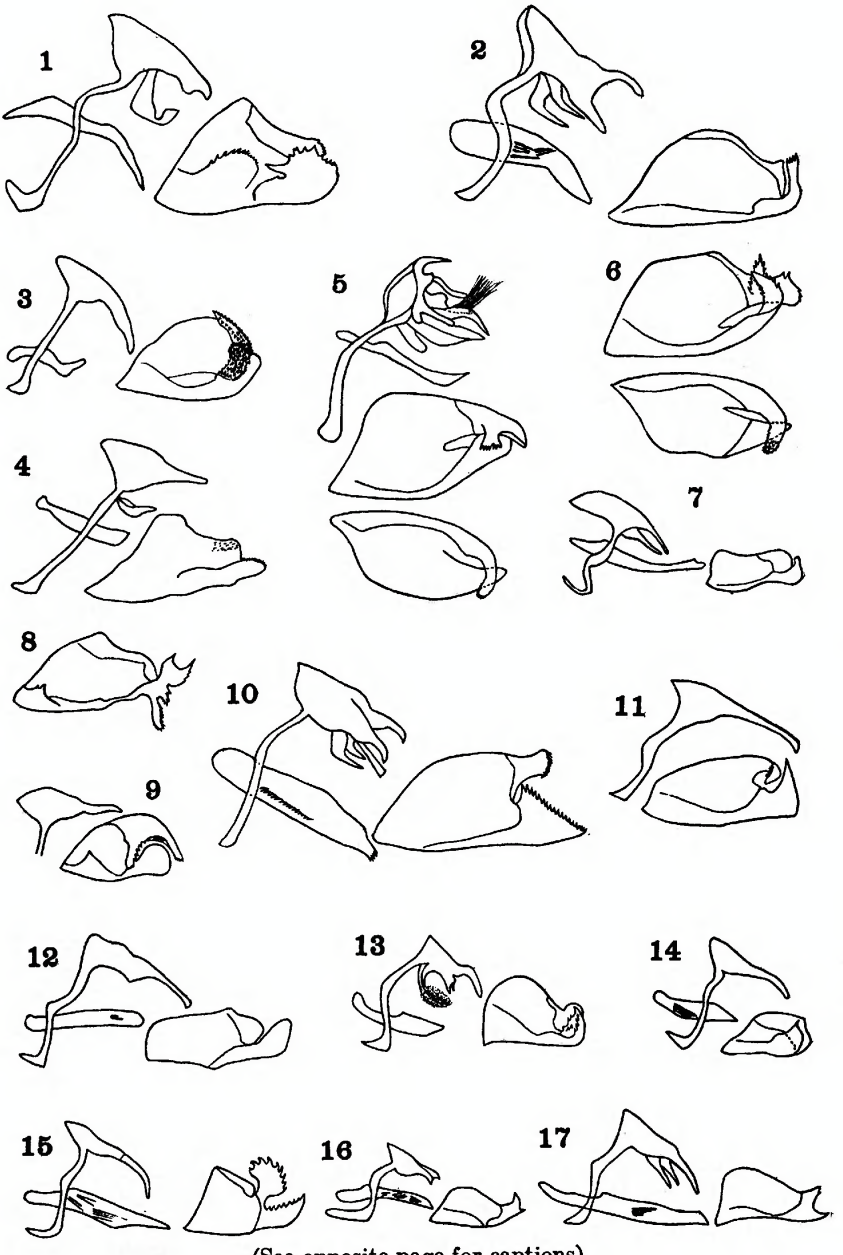
(*Captions for figures*)

Male genitalia of *Hesperiidae.* Where only one figure of the claspers is given, it is that of the left clasper.

Fig. 1.—*Oxynetra roscius* Hopffer. New Bremen, Brasil.
Fig. 2.—*Iliana romulus*, new species. Putumayo River, Peru. Type.
Fig. 3.—*Pellicia nebula*, new species. New Bremen, Brasil. Type.
Fig. 4.—*Pellicia* (?) *damon*, new species. Manicore, Brasil. Type.
Fig. 5.—*Pellicia* (?) *phintias*, new species. Iquitos, Peru. Type.
Fig. 6.—*Pellicia* (?) *achates*, new species. "Mapiri." Type.
Fig. 7.—*Pholisora inornata*, new species. Ecuador. Type.
Fig. 8.—*Ouleus gorgus*, new species. Punta Gorda, British Honduras. Type.
Fig. 9.—*Pholisora putumayo*, new species. Putumayo River, Peru. Type.
Fig. 10.—*Iliana remus*, new species. Putumayo River, Peru. Type.
Fig. 11.—*Pholisora banosa*, new species. Banos. Ecuador. Type.
Fig. 12.—*Pholisora catharina*, new species. New Bremen, Brasil. Paratype.
Fig. 13.—*Pholisora balsa*, new species. Balsapuerto, Peru. Type.
Fig. 14.—*Pholisora* (?) *angulata*, new species. Marumba, Brasil. Paratype.
Fig. 15.—*Pholisora aplica*, new species. Chilpancingo, Mexico. Type.
Fig. 16.—*Cogia evansi*, new species. Santa Cruz, Bolivia. Paratype.
Fig. 17.—*Pholisora chilpancingo*, new species. Chilpancingo, Mexico. Type.



(See opposite page for captions)

line from the costa and would parallel the median band if continued. The wings are greenish black, duller beneath. Fringes of the primaries black; of the secondaries white except at the inner and anal angles where they are black.

Head red with a black spot at the base of each antenna. Collar red. Shoulder covers black at the extreme sides, the rest red. Tegulae black with a large red spot at the base. Pectus black. Thorax beneath and the legs blue-black. Abdomen above with the basal third blue-black, the rest red edged with black, the ring nearest the base the broadest; beneath blue-black with some reddish central spots. Anal tuft red. Antennae black.

The female is like the male, the wings more rounded; the spots of the median band of the primaries are larger, those in interspace 1 elongate and lying one close above the other; the upper one of the subapical spots is shorter than the one beneath it; the fringes of the primaries are white except at the extreme apex; some central red hairs in the pectus.

The male genitalia appear to be the same as that of *roscius*.

Expanse.—Male, 52 mm.; female, 54 mm. (twice the distance from center of thorax to apex of one primary).

Types.—Holotype male and allotype female, New Bremen, Santa Catharina, Brasil, March 27 and February 4.

Cogia evansi, new species

Figure 16

Closely allied to *hassan* Butler and *freudiae* Williams and Bell, but widely differing from both in the form and position of the whitish bands on the underside of the secondaries.

Male.—Upper side of both wings varying in individuals from rather light brown to chestnut brown. Primaries with four minute whitish subapical spots in an oblique line in interspaces 6, 7, 8 and 9, sometimes very indistinct; a small whitish spot in the cell on the upper margin toward the end, occasionally absent; a pale outer marginal line, very narrow. Fringes paler brown, crossed by dark brown at the end of the veins, a narrow dark basal line, a small white spot at the apex of the wing. Secondaries unmarked except for a very narrow, pale outer marginal line; the hair tuft in the abdominal fold a little paler brown and inconspicuous. Fringes paler brown intermixed with darker and crossed by still darker brown at the end of the veins, except at vein 6 where they are whitish at the tips, these characters being somewhat variable in individuals.

Beneath.—Primaries dark brown along the costa, apical area and inner margin to vein 1, all the rest of the wing pale grayish brown; apical area heavily overscaled with whitish which is continued in a narrow submarginal line paralleling the outer margin to vein 2, except in one male having less heavy overscaling confined to the apical area. A narrow, white terminal line; the veins in the apical area and outer marginal quarter of the wing pale brownish to whitish. Subapical spots repeated and more distinct; the cellular spot repeated and in some individuals continued above the cell almost to the margin of the wing; in two specimens lacking the cell spot on the upper side it is present on the under side above the cell only. Fringes as above, a little paler, the white subapical spotrep eated. Secondaries dark violet-brown, with the following continuous, very narrow, whitish bands: first, a bar across interspace 7 near the base, continued above vein 8 halfway to the margin of the

wing; second, a band across interspace 7 to the abdominal fold sharply bent inward at the upper margin of the cell, this band is also continued above vein 8 halfway to the margin where it is connected by a slightly convex bar with the top of the first band; third, from vein 8 to the abdominal fold, a little dislocated at the upper edge of the cell and slightly convex from there to the fold; fourth, from vein 8 to the abdominal fold, farther from the third band than that band is from the second; fifth, from vein 7 to the abdominal fold, approximately the same distance from the fourth band as the third band is from the second band; sixth, marginal, from vein 8 to the anal angle. The entire wing overscaled with whitish and pale brown, some times heavily so. Abdominal fold pale grayish brown with a thin white line along the inner margin. Veins white or very pale brownish. Fringes as above.

Head and body above brown. Palpi beneath white. Pectus and thorax grayish white. Abdomen beneath grayish white spotted with brown. Antennae above brown, beneath grayish brown, the apiculus reddish.

FEMALE.—Slightly larger and darker, the primaries beneath with only the inner margin pale brownish; otherwise similar to the male.

EXPANSE.—Male, 25–30 mm.; female, 30 mm.

TYPES.—Holotype male; allotype female; three male and one female paratypes, Santa Cruz, Bolivia.

Named for my friend Brigadier W. H. Evans of the British Museum.

Pellicia nebula, new species

Figure 3

Resembles the *macarius* Herrich-Schaffer, *bessus* Moschler, *ephora* Herrich-Schaffer group of these insects, the rather short hair tuft of the secondaries being nearer to that of *macarius*, from which *nebula* may be distinguished by the form of the male genitalia. *Nebula* is a little smaller than *bipuncta* Schaus, found in the same locality, and the lower subapical hyaline spot is smaller and more directly under the upper one, the black bands on the wings more indistinct, the marginal area of the primaries not as distinctly paler, and the hair tuft of the secondaries shorter than in that species.

Upper Side.—Blackish brown. Primaries with the following narrow, indistinct black bands: one near the base of the wing; a black spot in the cell extending across interspace 2; one from the costa around the end of the cell to vein 1; one submarginal. Two hyaline subapical spots, one in interspace 8, the larger; one in interspace 7 very minute, and almost directly beneath the upper one. Secondaries with a black basal spot; a discal band bifurcated near the end of the cell and both sections extending to the abdominal fold; a submarginal band, all blackish and indistinct.

Under Side.—Primaries a little paler than above; subapical spots repeated; bands of the upper side repeated except the basal one; inner margin below vein 1 and in the basal three-quarters of interspace 1 pale brownish; a pale brownish spot at the apex. Secondaries, anal half paler than the rest; bands of the upper side repeated and more distinct in the paler anal area; a pale transverse bar in the cell.

Body above and beneath dark brown. Palpi beneath and pectus brown with some pale yellowish-brown hairs. Antennae blackish on both sides, club beneath reddish.

EXPANSE.—42 mm.

TYPE.—Holotype male, New Bremen, Santa Catharina, Brasil.

Pellicia (?) **damon,** new species

Figure 4

Upper side rufous brown. Primaries with four blackish bands, the first a short sub-basal band composed of two spots, one in the base of the cell and the other immediately below it in interspace 1; the second, a large, squarish black spot in the cell before the end and a smaller, oblong spot below it in interspace 2; the third, composed of elongate spots, from the costa around the end of the cell to vein 1, somewhat dislocated below the end of the cell; the fourth, submarginal. Fringes concolorous. Secondaries with a black spot in the base of the cell; another squarish spot in the middle of the cell with two minute streaks above it; a discal band of spots beginning on vein 7, bifurcated on vein 5, the two sections extending to near the abdominal fold; a submarginal band of spots. Fringes concolorous.

Beneath rufous brown, paler than above. Primaries with the outer three bands repeated but less distinct; inner margin and lower base paler grayish brown. Secondaries a little paler than primaries, bands and spots of upper side repeated; a large blackish brown spot at the anal angle; abdominal fold with bluish-gray hairs.

Head and body above dark brown; a few bluish-gray hairs on the front of the head just above the palpi. Pectus, palpi and thorax beneath—bluish gray. Abdomen beneath whitish with a dark brown central line. Antennae black on both sides, the apiculus somewhat reddish beneath.

EXPANSE.—42 mm.

TYPE.—Holotype male, Manicore, Brasil.

P. damon and the two following described insects are probably not strictly congeneric with *dimidiata* Herrich-Schaffer, the genotype of *Pellicia*, but they so closely agree with a number of species in the genus in coloration, wing shape and form of maculation that they will be readily recognized here. They differ from *Pellicia* in not having a hair tuft or swollen veins on the secondaries and the form of the male genitalia is different. Compared with other closely related genera, they differ from *Eracon* Godman and Salvin in the more pointed primaries and lack of hair tuft on the hind tibiae; from *Gorgopas* Godman and Salvin they differ in having no costal fold on the primaries and no metallic overscaling on the body or wings; from *Mycteris* Mabille they differ in having no hair tuft or swollen veins on the secondaries. Despite the lack of the secondary sexual characters of *Pellicia*, and the somewhat different form of the male genitalia, there may be some doubt as to the actual necessity of a new genus to contain these insects and the writer refrains from erecting one. The insect previously described by the writer as *Eracon* (?) *duidae* (1932, American Museum Novitates, No. 555, p. 12, Fig. 5) much resembles these three insects in superficial appearance and is most closely related to *damon* and it may eventually have to be placed with them.

Pellicia (?) phintias, new species

Figure 5

This insect so closely resembles *damon* that a detailed description of it would be for the most part a mere repetition of the description of that insect, therefore only the differences between the two seem necessary to be given here.

Upper side darker rufous brown. Primaries with the dark bands less distinct and a very minute, indistinct spot at the end of the cell; the third band less dislocated below the end of the cell. Secondaries with the bands very indistinct and an additional black spot of the submarginal band above vein 7.

Beneath darker than *damon* and with a purplish sheen. Primaries with inner margin and lower base paler but not as much so as in *damon*. Secondaries with the large blackish anal spot extended to vein 2 as part of the submarginal band; the bluish-gray hairs of the abdominal fold extend narrowly to vein 2 on either side of the black anal spot.

Body, palpi and antennae as in *damon*.

Expanse.—42 mm.

TYPE.—Holotype male, Iquitos, Peru.

Despite the very close superficial resemblance between *damon* and *phintias*, the details of the gentilia are very different as will be readily seen from the accompanying figures.

Pellicia (?) achates, new species

Figure 6

This insect also closely resembles *damon*, is a trifle smaller, the color a little paler rufous brown, with the same form of maculation on both wings. The two outer, blackish bands of the primaries are somewhat narrower. On the under side of the primaries the dark bands of the primaries are very indistinct. The outer half of the secondaries is paler than the basal half; the bluish-white overscaling in the abdominal fold is very scattered; and there is no dark spot at the anal angle. Head, body and palpi same as in *damon*. The club of the antennae pale brownish beneath.

The form of the genitalia of *achates* differs from that of *damon* in the uncus and both claspers and is nearest to that of *phintias* differing principally in the left clasper.

Expanse.—40 mm.

TYPE.—Holotype male, "Mapiri."

NOCTUANA, NEW GENUS

GENOTYPE.—*Helias noctua* Felder

This genus is erected for certain insects which Godman and Salvin included in the genus *Theagenes* and their South American allies.

These insects differ from *aegides* Herrich-Schaffer, the genotype of *Theagenes*, and its allies in having a distinctly swollen antennal club with a sharp pointed apiculus hooked beyond the middle; in *Theagenes* the club is gradually thickened, arcuate and tapers to a more or less blunt point. The third papal joint is shorter. The primaries are broader; the secondaries longer, more produced at the anal angle, the outer margin

dentate. A costal fold may be present or absent in the males. The hind tibiae of the males have a long fringe. In the male genitalia the uncus is long, tapering, with a slightly bulbous apex; the claspers are broad, blunt, divided at the apex, the lower left and both right divisions strongly toothed, and are not quite symmetrical.

The relationship of *Noctuana* is nearer to *Pellicia* than to *Anisochoria*, with which genus the writer believes *Theagenes* to be synonymous.

The species at present described and belonging in the genus *Noctuana* are: *noctua* Felder; *bipuncta* Plotz; *brunneofusca* Mabille and Boullet; *brunneofusca* form *uniformis* Mabille and Boullet; *diurna* Butler (*bellinita* Plotz); *haematospila* Felder; *lactifera* Butler and Druce; *stator* Godman and Salvin.

The name *Noctuana* for this genus was suggested by Brigadier W. H. Evans of the British Museum.

Noctuana lactifera Butler and Druce

Helias lactifera BUTLER AND DRUCE, 1872, Cistula Ent., I, p. 115. Costa Rica.
Theagenes lactifera GODMAN AND SALVIN, 1899, 'Biol. Centr.-Amer.,' Rhop., II, p. 459, Pl. XCI, figs. 30, 31, 32.

Godman and Salvin state that the type of *lactifera*, in the British Museum, is a female. They associated with it, males of similar appearance having a costal fold on the primaries. I am informed by Brigadier W. H. Evans that the type of *lactifera* is a male and lacks the costal fold. The lack of the costal fold probably caused Godman and Salvin to believe it to be a female. The name *lactifera* must therefore be applied to the insect which has no costal fold in the male.

The other very similar insect having a costal fold in the male is *bipuncta* Plotz, heretofore considered to be a synonym of *lactifera*. Plotz described *bipuncta* in the genus *Antigonus*, giving as one of the characters, the costal fold, and stating the habitat to be Mexico. *Bipuncta* seems to be a slightly smaller insect than *lactifera* on the general average of size but is very similarly marked.

In The American Museum of Natural History collection there are two male specimens of *lactifera*, one from Costa Rica and one from Guatemala; and thirteen male specimens of *bipuncta* from Mexico and Guatemala.

ILIANA, NEW GENUS

GENOTYPE.—*Iliana romulus*, new species.

Primaries rather short and broad, apex pointed, costal margin slightly curved, outer margin a little rounded, inner margin slightly longer than the outer margin, cell about two-thirds the length of the wing, a well-developed costal fold.

Secondaries somewhat triangular, longer than the abdomen, outer margin nearly straight, very little rounded.

Palpi long, roundish, the scales closely set, third joint moderate in length, conical, projecting straight forward from the second joint.

Antennae not reaching the end of the cell, the club very long, gradually thickened, tapering to a long, sharp pointed, hooked apiculus which is not as long as the club.

Hind tibiae with a dorsal fringe and two pairs of spurs.

The uncus of the male genitalia is broad at the base, from both sides of which project forward a down curved, apically pointed arm. The saccus is very short. The aedoeagus is stout and carries internal spines. The claspers are approximately symmetrical, apically divided, one or both divisions carrying short but well-developed apical serrations.

The superficial appearance of the two species here described in this genus somewhat resembles that in the genus *Aethilla* Hewitson, from which they principally differ in the form of the palpi, the presence of a costal fold on the primaries of the male, the lack of a tibial tuft, the very different form of the male genitalia.

Iliana romulus, new species

Figure 2

Upper side dark brown. Primaries with two, narrow, very indistinct darker bands from the costa to vein 1, the first through the middle of the cell; the second around the end of the cell; a little paler from the second band to the outer margin and with a faint violet tinge. Secondaries with two very narrow dark bands from vein 8 to the abdominal fold, beginning close together on vein 8, the outer band diverging outwardly a little below the cell end and then curving inwardly; the area between the outer band and the margin of the wing is a little paler and with the violet tinge more pronounced than on the primaries. Fringes of both wings brown, the tips a little paler.

Beneath.—Primaries dark rufous brown, the dark bands of the upper side barely discernible; narrowly paler along inner margin; the dark fringes with a paler basal line. Secondaries, costal area above the cell dark rufous brown; rest of the wing paler brown, palest at abdominal fold and anal angle; the dark bands of the upper side are only visible as two indistinct spots in and above the end of the cell; a thin terminal line of bluish-white scales, which extend a little onto the base of the fringes, from the outer angle to the anal angle, heaviest just above the abdominal fold.

Head and body above, palpi, pectus and thorax beneath dark brown; abdomen beneath sordid whitish with a dark brown central line. Antennae on both sides blackish, the apiculus somewhat reddish beneath.

Expanse.—42 mm.

Type.—Holotype male, Putumayo River, Peru.

Iliana remus, new species

Figure 10

Upper side very dark brown, darker than in *romulus*, the bands of the primaries not visible; those of the secondaries but barely so and appear to be of the same form

as in *romulus* but a little wider apart where they begin on vein 8. There is no violet tinge on the outer area of either wing.

Beneath.—Primaries dark brown, a little paler along the inner margin; fringes with a narrow, paler basal line. Secondaries same color, the outer band barely visible; a thin terminal line of bluish-white scales which extend inwardly in a thin ray in the center of interspace 1; an indistinct darker spot at the anal angle; and a hazy indication of a submarginal row of darker spots.

Head and body above dark brown; palpi missing but indications are that they are dark brown; thorax beneath dark brown with some gray hairs; abdomen beneath whitish with a brown central line. Antennae blackish on both sides.

Expanse.—42 mm.

TYPE.—Holotype male, Putumayo River, Peru.

Ouleus gorgus, new species

Figure 8

Belongs in the group with *fridericus* Geyer, the primaries without hyaline subapical spots, the wings more uniformly brown and the maculation in the form of definite bands similar to those found in some of the species of *Pholisora*. The short, porrect terminal joint of the palpi and the rather long, gradually thickened club of the antennae, with a sharp pointed apiculus, ally this insect more closely with *Ouleus* than *Pholisora*.

Upper side brown. Primaries with three, narrow, darker bands, the first through the middle of the cell, from the costa to vein 1; the second, from the costa around the end of the cell to the inner margin; the third submarginal. Fringes brown. No costal fold. Secondaries with three dark spots at the base; a curved discal band from costal margin to abdominal fold, bifurcated below the end of the cell; a submarginal band. Fringes brown.

Beneath a little paler. Primaries narrowly paler along inner margin and at inner angle; a small pale spot at the apex; bands of the upper side repeated. Secondaries a little paler in the anal half; bands of the upper side repeated except the basal spots, that area being entirely brown.

Head and body above and beneath, including the palpi, brown. Antennae blackish above, beneath brownish, the club reddish in the apical half.

Expanse.—36 mm.

TYPE.—Holotype male, Punta Gorda, British Honduras.

The uncus was so badly broken in preparation that it could not be shown in the accompanying figure. The claspers are approximately symmetrical and are remarkable for the peculiar, heavily chitonized, projections from the ventral edge at the apex.

Pholisora giselus race **boliviensis,** new race

Differs from typical *giselus* Mabille principally in the much larger size, so much so that it might readily be taken for a distinct species. Two of the four males present lack all trace of the subapical spots of the primaries usually found in Central American specimens; one has a minute dot in interspace 8, showing on both sides of the wing; one has a mere trace of a dot in the same interspace showing only on the under side of the wing.

Expanse.—37 to 38 mm.

TYPES.—Holotype male and three paratype males labelled "Cochabamba, Bolivia."

The form of the male genitalia is identically the same as that of *giselus* Mabille.

Pholisora chilpancingo, new species

Figure 17

Superficially resembles *evippe* Godman and Salvin and *giselus* Mabille, from which it can hardly be accurately distinguished except by the form of the male genitalia which is very different from that of either of the two species mentioned.

On the upper side the wings are dark brownish with the usual indistinct, darker transverse bands and are variably overscaled with dark fulvous. One specimen, the type, has a minute, white subapical dot in interspace 8 of the primaries; another specimen has no trace of this spot on the upper side but it is barely indicated on the under side; the third specimen has no trace of the spot on either side. Costal fold of primaries is present.

Under side of wings dark brownish. Outer marginal quarter of primaries paler, with a row of paler spots extending from costa around the cell end to near the inner margin and some faint black dashes just beyond the end of the cell; inner margin grayish, especially at the base. Secondaries with a curved discal and outer row of pale spots, which are merely accumulations of yellowish scales and not well defined; a variable overscaling of fulvous, especially in and along the abdominal fold. Fringes dark brown, somewhat grayish at the tips.

Top of head and thorax dark brown and fulvous. Palpi beneath white with a few black hairs, the third joint black and fulvous. Pectus grayish or yellowish white. Abdomen above brown, beneath brown and fulvous. Thorax beneath grayish. Antennae above blackish brown, beneath spotted with fulvous, the club entirely fulvous.

Expanse.—38–40 mm.

TYPES.—Holotype male, Chilpancingo, Mexico, and two male paratypes, Balsas, Mexico and "Mexico."

Pholisora catharina, new species

Figure 12

This insect has considerable superficial resemblance to *giselus* race *boliviensis* but is still larger.

The upper side of the wings is dark brown. The primaries of the male have a darker spot in the cell near the end, which is narrowly and faintly continued to vein 1; a broad, dark band from the costa around the end of the cell to the inner margin; a broad dark, marginal band. A prominent costal fold is present on the primaries of the male. There are no subapical spots in either sex. The secondaries are crossed by three curved bands of irregular, ill-defined, paler spots. Both wings are variably overscaled with fulvous.

Beneath slightly paler than above. Primaries with outer marginal quarter paler than the rest; in some specimens there are a few dark dashes at the apex; bands of the upper side faintly visible; inner margin narrowly paler. Secondaries usually a

little paler in the lower half; the pale bands of the upper side variably present; a sparse overscaling of fulvous.

Head and thorax above brown with a little fulvous. Palpi beneath, the third joint black and a little fulvous, the rest, and the pectus, brown heavily intermixed with yellowish white to fulvous. Abdomen above and beneath brown with a little fulvous. Thorax beneath brown and sordid yellowish to fulvous. Antennae above blackish brown, beneath spotted with pale fulvous, the club yellowish.

Female similar to the male, a little paler, the bands of both wings above and beneath a little more distinct; the fulvous overscaling of the secondaries somewhat heavier and extending onto the primaries.

Expanse.—Male, 38–40 mm, one small specimen 35 mm., female, 40–42 mm.

Types.—Holotype male and allotype female, New Bremen, Sta. Catharina, Brasil. Paratypes: four males and five females, New Bremen; one male and one female, Massaranduba-Blumenau, Brasil.

Pholisora banosa, new species

Figure 11

This is another large species of *Pholisora*, approaching *catharina* in size but the color of the upper side of the wings has a more rufous tint and the dark bands of the primaries are lacking.

Upper side of the wings rufous brown. Primaries with a band of small, indistinct, pale spots extending from the costa around the cell end to vein 1, the two lower spots, in interspace 1, somewhat bent inwardly from the rest of the band; a few scattered fulvous scales; inner margin narrowly paler. There are no subapical spots and no costal fold. Fringes dark brown. Secondaries with a hazy indication of a discal curved band of paler spots and a narrow stripe in the cell; a sparse overscaling of fulvous.

Beneath a little paler than above. Primaries with outer marginal area paler than the rest; an overscaling of fulvous in the apical area. Secondaries paler in the anal half; pale band and cell stripe of upper side a little more distinct and another short band of pale spots inwardly paralleling the lower part of the other band. Lightly overscaled with fulvous, especially in the abdominal fold.

Head and thorax above brown, a few fulvous scales on the head. Palpi missing. Pectus brown and fulvous. Thorax beneath brown. Abdomen above brown; beneath brown with a little fulvous in the center. Antennae above and beneath blackish, the club yellowish beneath.

Expanse.—40 mm.

Types.—Holotype male, Banos, Ecuador.

Pholisora inornata, new species

Figure 7

This is one of the smaller members of the genus and bears no close resemblance to any of the other described species with which the writer is familiar.

Upper side of the wings brown, without dark bands or spots and no subapical spots on the primaries. The primaries are sparsely overscaled with pale fulvous. Secondaries with some long fulvous hairs. Both wings have a somewhat darker terminal line. Fringes a little paler than the ground color of the wings. No costal fold on the primaries. Outer margin of secondaries rounded, with no excavation.

Beneath paler than above; no dark bands on either wing. Primaries broadly yellowish white along inner margin except at the inner angle. Both wings overscaled with pale fulvous and both have a dark terminal line.

Upper side of head and body dark brown and a little fulvous. Palpi missing. Thorax beneath with long fulvous brown hairs. Abdomen beneath brownish fulvous. Antennae black above; beneath spotted with yellow; club missing.

Expanse.—28 mm.

TYPE.—Holotype male, Ecuador.

Pholisora putumayo, new species

Figure 9

A small species somewhat resembling *aurocapilla* Staudinger but from which it may be immediately distinguished by the presence of the additional small white spots on the primaries mentioned in the following description.

Above dark brown. Primaries with three small, hyaline, subapical spots, the central one slightly inward of the other two; and the following minute white spots: one in the cell on the upper border near the end; one in the basal quarter of interspace 3, very minute; one in the basal quarter of interspace 2, a little larger but still minute; one almost directly beneath in the center of interspace 1 and about the same size; a slightly paler brown spot in the end of the cell; a curved row of paler brown spots from near costa, outside of the subapical spots, to vein 1; these paler spots and the pale cell spot bound a faintly discernible dark band through the cell from the costa to vein 1 and another dark, curved band, enclosing the subapical hyaline spots, from the costa to vein 1; the outer margin has a dark border. A prominent costal fold is present. Secondaries rounded, no excavation in the outer margin; an outer band, discal band and minute basal spot, all paler brownish; some indistinct, paler marginal streaks between veins. Fringes of both wings blackish brown. Both wings sparsely overscaled with pale fulvous.

Beneath a little paler. Primaries with costal, outer and inner marginal areas paler than the rest; a small, indistinct, pale transverse streak in the cell; the outer row of spots less prominent than above; a few pale fulvous scales at the apex. The three subapical spots are repeated but none of the other white spots are present beneath. Secondaries with a minute basal spot; a transverse streak in the cell; and an outer irregularly curved row of spots, the lower three the most distinct, all formed of accumulations of pale fulvous scales and not well-defined spots; a very scattered overscaling of pale fulvous, mostly at base, abdominal fold and anal angle.

Top of head and collar golden; shoulder covers brown sprinkled with golden; tegulae brown. Palpi missing but beneath were probably fulvous as indicated by the few remaining hairs. Abdomen above and beneath brown. Pectus and thorax beneath brown and fulvous. Antennae black above; beneath minutely spotted with pale fulvous, the club yellowish.

Expanse.—29 mm.

TYPE.—Holotype male, Putumayo River, Peru.

Pholisora aplica, new species

Figure 15

This species somewhat resembles *giselus* Mabille in general appearance but may be distinguished therefrom by the absence of the costal fold on the primaries of the male.

Upper side of both wings rusty brown. Primaries with the usual dark bands scarcely visible, one across the cell and one from the costa around the cell end to vein 1; one specimen, the type, has a single small, hyaline subapical spot in interspace 8; another specimen has one in each of interspaces 6, 7 and 8; and a third specimen has one in each of interspaces 7 and 8. Fringes slightly paler than the ground color of the wings. Secondaries have two bands of small pale spots, one discal and the other between it and the margin; a transverse streak in the cell; a minute spot toward the base of the wing, all of which are very indistinct; a sparse overscaling of fulvous heaviest along abdominal fold and in anal area. Fringes same as on primaries. Outer margin rounded, with no excavation.

Under side paler than above. Primaries with outer margin and the inner margin particularly toward the base paler than the rest of the wing; the dark bands of the upper side still more indistinct; the subapical spots are repeated but only the one in interspace 8 is clearly seen. Secondaries with the bands of pale spots of the upper side more reduced; a slight overscaling of fulvous especially along abdominal fold and at anal angle.

Top of head and body brown and fulvous. Palpi beneath and pectus fulvous or brown and fulvous. Thorax and abdomen beneath fulvous or brown and fulvous. Antennae above black; beneath variably spotted with yellow fulvous, the club entirely fulvous, reddish on the side of the apiculus.

Expanse.—34–36 mm.

Type.—Holotype male, Chilpancingo, Guerrero, Mexico; two male paratypes, San Jose, Costa Rica, 3900 feet, August 4.

Pholisora balsa, new species

Figure 13

This insect is somewhat like *mazans* Reakirt but there are no hyaline spots on the primaries and the secondaries are rounded with no excavation in the outer margin.

Primaries of the male dark brown; a large black spot occupying the basal two-thirds of the cell and below it to vein 1; an irregular, curved black band extending from the costa around the cell end to vein 1; the part from vein 3 to vein 1 broader than the upper part; a black marginal border. Fringes blackish. Outer half of wing overscaled with pale fulvous and yellowish white. Costal fold present. Secondaries black in basal third; a black discal band outwardly bordered by a bent row of pale spots composed of accumulations of pale fulvous and yellowish white scales; a black marginal border. Fringes blackish.

Beneath.—Primaries paler than above; the black bands of the upper side indistinctly present; inner margin narrowly paler; a few fulvous scales near the apex. Secondaries blackish in the basal quarter; outer three-quarters dark brownish; a black discal band curved from costa to abdominal fold, broadest above the cell, and bordered by a row of pale spots composed of accumulations of pale fulvous scales, the lower three or four being the most prominent and these are paralleled inwardly by three or four similar spots; a few fulvous scales near the border below vein 3.

Top of head and body black with a very few fulvous scales. Palpi beneath black and fulvous. Pectus black. Abdomen beneath black. Antennae above and beneath black, the club beneath brownish.

Female similarly marked but paler and more heavily overscaled on both wings, the black bands more prominent; the fulvous overscaling on the black marginal bor-

der of the primaries causing the appearance of a band of triangular black spots; on the secondaries the black marginal band is broken up into spots. The overscaling of fulvous extends onto both sides of the thorax and abdomen. Beneath a little paler than the male. Primaries with more fulvous scales at the apex and extended along the entire costa to the base. Secondaries with heavier overscaling at the base, abdominal fold and inner marginal half of the wing. The antennae above and on the sides with an overscaling of fulvous and both the shaft and the club are fulvous beneath.

Expanse.—Male, 30 mm., female, 31 mm.

Types.—Holotype male, Balsapuerto, Peru; allotype female, Yumbatos, Peru.

Pholisora (?) **angulata,** new species

Figure 14

This species is possibly not congeneric with the others, the inner margin of the primaries is curved inwardly in the center, producing a distinct lobe at the inner angle of those wings and the outer margin of the secondaries is slightly excavated above the anal angle and between veins 4 and 6 thus giving the appearance of a slight projection in the middle of the wing. The form of the male genitalia is, however, close to that of *Pholisora.*

Upper side of both wings brown with a variable overscaling of sordid whitish. Primaries with a darker band from upper edge of the cell to vein 1; a band curved around the cell end to vein 1; a marginal band which contains still darker spots between the veins; these markings are very indistinct in one specimen; three hyaline subapical spots, the middle one a little out of line inwardly, the upper spot the largest, the lower the smallest; a small hyaline spot in the cell on the upper margin near the end. In addition to the lobe at the inner angle there is a slight excavation in the outer margin between veins 1 and 2. The fringes are brown, a little darker at the end of the veins, except between veins 1 and 2 where they are paler brownish, and they have a narrow, black basal line. Secondaries dark at the base; a subbasal dark band, forked between veins 7 and 8; a dark discal band; a submarginal band of dark spots, rather indistinct. Fringes brown, darker at end of veins and with a narrow, black basal line.

Beneath paler than above. Primaries with the bands of the upper side indistinctly repeated in two specimens, more prominently in the third; the hyaline subapical spots repeated; an ochreous spot at the apex, composed of an accumulation of scales of that color; a little overscaling of sordid whitish, much heavier in one specimen. Secondaries with the bands of the upper side but less distinct, in one specimen more prominent than the others; the sordid whitish overscaling heaviest in the abdominal fold.

Top of head, thorax and abdomen brown variably intermixed with sordid whitish. Palpi above blackish brown and fulvous, beneath, and the pectus, brown heavily intermixed with sordid whitish or yellowish white scales. Thorax with long hairs of similar color. Abdomen brown. Antennae above blackish, beneath variably spotted with fulvous, the club fulvous.

Expanse.—32 mm.

Types.—Holotype male, Sul de Minas, Brasil; two male paratypes, Itatiaya, Brasil, and Marumba, Brasil.

Heliopetes leca Butler

Pyrgus leca Butler, 1870, Trans. Ent. Soc. London, p. 510. Venezuela.

Erynnis laviana Hayward (not Hewitson), 1933, Revista de la Sociedad Entomologica Argentina, V, p. 271; Pl. xxi, fig. 8, Pl. xxx, fig. 4.

Butler's *leca* has long been placed by authors as a synonym of *laviana* Hewitson, however, in his original description Butler mentions a white ray on the under side of the secondaries which extends from the outer margin through the cell to the V-shaped basal spot. This ray is not mentioned by Hewitson in his original description of *laviana* (1868, 'Descriptions of One Hundred New Species of Hesperiidae,' part 2, p. 48) and is not shown in his subsequent figure of that insect (1875, 'Exotic Butterflies,' V, Leucochitonea Pl. II, figs. 15, 16).

In addition to the white ray mentioned there are other superficial characters readily separating *leca* from typical *laviana*. On the upper side of the wings *leca* is glistening white, much more so than *laviana* and on the under side of the secondaries the inner edge of the darker colored outer marginal area is always deeply indented opposite the cell, this latter character being more noticeable in those individuals having the white ray poorly developed; when the white ray is well developed the inner edge of the dark marginal area is obliterated where the ray passes through it. In *laviana* the inner edge of the dark marginal area is always an approximately straight, even line for the entire length.

Leca was described from material from Venezuela, and specimens examined from that country, Colombia, Peru, Argentine, Paraguay, and southern Brasil all agree with the characters mentioned by Butler. *Laviana* was described from material from Nicaragua, and specimens from southern Texas, Mexico and Central American localities all agree with the characters of Hewitson's description and figures.

As the form of the male genitalia is the same in both insects it is probable that *leca* represents merely a well-defined southern race of *laviana* but there are sufficient and constant superficial differences between the two insects to warrant retaining the name *leca* for the southern form.

In The American Museum of Natural History collection there is a series of three males and five females from La Rioja, Argentine, which are smaller than the general average and have the dark areas and spots of the upper side of the primaries more brownish and not the usual blackish brown and in the males the usual broad dark apical area of these wings is reduced to a small brownish apical patch and only the fringes and the tips of the veins are brown. These males present a very glistening white appearance.

Pyrgus domicella race **margarita,** new race

Differs from typical *domicella* in the very reduced white areas of both wings.

Male has the median white band of the primaries very narrow and sparsely strewn with brown scales; the four subapical spots are minute; the white spot near the base of interspace 3 and the two in interspaces 4 and 5 are small, ill-defined and intermixed with brown scales; the usual row of white submarginal spots is either entirely absent or represented by a few white scales; the marginal row is entirely absent; all the rest of the wing is brown. On the secondaries the white median band is narrow, ill-defined and heavily overscaled with brown; the usual submarginal row of spots is reduced to three small, ill-defined spots, overscaled with brown, near the anal angle; the rest of the wing brown.

On the under side the bands of both wings are a little broader and more clearly defined, although the median band of the secondaries is pale, smoky brown. The subapical spots and the two in interspaces 4 and 5 are larger and more prominent than on the upper side.

Female has the median band of both wings a little broader and less overscaled with brown than the male and the other spots of both wings are better defined, though all are reduced from the typical form.

Expanse.—Male, 34 mm., female 37 mm.

TYPES.—Holotype male, and allotype female, Margarita Island, Venezuela.

Erynnis quadratus Dyar

Thanaos quadratus DYAR, 1926, Insec. Menstr., XIV, p. 142. Colima, Mexico.

The type in the National Museum in Washington is a female and a member of the genus *Pholisora.* It appears to be either the same as *azteca* Scudder or a very similar species.